

## What is Inherent Variability in Syntax?

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**Problem** Variationist linguists typically insist that variation in language—more than one way of saying (more-or-less) the same thing—is inherent, that is, a design feature of language. Formal syntacticians concentrate on structures that are or are not possible, without taking an interest in which possible (near-synonymous) utterances occur under what conditions. Generative grammar allows for parameter setting, but it is sometimes not explicit exactly what one set parameter versus another looks like in a grammar. Syntactic variation for variationists is often about selecting one form rather than another, like a WH-form,  $\emptyset$  or *that* in a relative clause (Tagliamonte, Smith and Lawrence 2005).

Making variation truly an inherent part of syntactic processes seems to suggest that probability be built into the process. Movement of structures in generative grammar is assumed to be motivated by the need for a feature in one part of a structure, such as an EPP feature, to be satisfied by agreement with a feature in a proximate other structure. The agreeing feature may need to move in order to be sufficiently proximate.

One possibility would be not to adjust syntactic theory by introducing probability directly, but to exploit a possibility that already exists: choice among lexical and functional items in the lexicon. We could assume two similar elements, one with the feature requiring agreement and one without. Variability in movement would arise from the probability with which one or the other element is selected in otherwise identical arrays. This approach would have two advantages. First, we already need this mechanism for some kinds of syntactic variation, like the choice among relative forms mentioned above, and second, it requires no major shift in how formal generative syntax is conceptualized.. A possible disadvantage is that it would mean that syntactic variability is fundamentally not inherent.

**Case Study.** An examination of syntactic movement in Dutch suggests that even a syntactic process like movement is best analyzed in the second way, as a choice among forms. The test case is the excellent study of word-order variation in Dutch verb clusters in Barbiers 2005. Barbiers' study is one of very few to address variable syntactic movement based on a massive set of survey data on acceptability judgments. I will largely follow his analysis of Modal-Auxiliary-Verb clusters, adjusting it in a certain places.

**The Dutch facts.** Dutch dialects allow clusters of a modal, an auxiliary and a participle, as in:

dat hij de koek moet<sup>1</sup> hebben<sup>2</sup> gemaakt<sup>3</sup>  
that he the cake must have.INF made.PPL  
“that he must have made the cake”

The following three orders are possible:

(that he the cake) must<sup>1</sup> have<sup>2</sup> made<sup>3</sup>  
(that he the cake) must<sup>1</sup> made<sup>3</sup> have<sup>2</sup>  
(that he the cake) made<sup>3</sup> must<sup>1</sup> have<sup>2</sup>

### Assumptions.

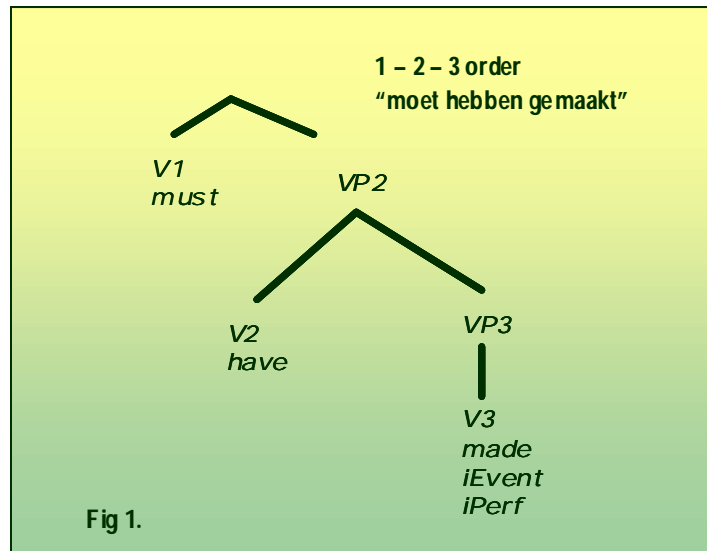
- Barbiers assumes Kayne's (1994) antisymmetry principle, entailing that the verb structure is underlyingly consistently head first:
- Agreement is what makes movement possible. If there is agreement, movement is possible, and required (*contra* Barbiers, for whom movement is optional).
- Following Barbiers, I assume that modals and auxiliaries may have an uninterpretable Event feature that must be erased under agreement with the interpretable Event feature on

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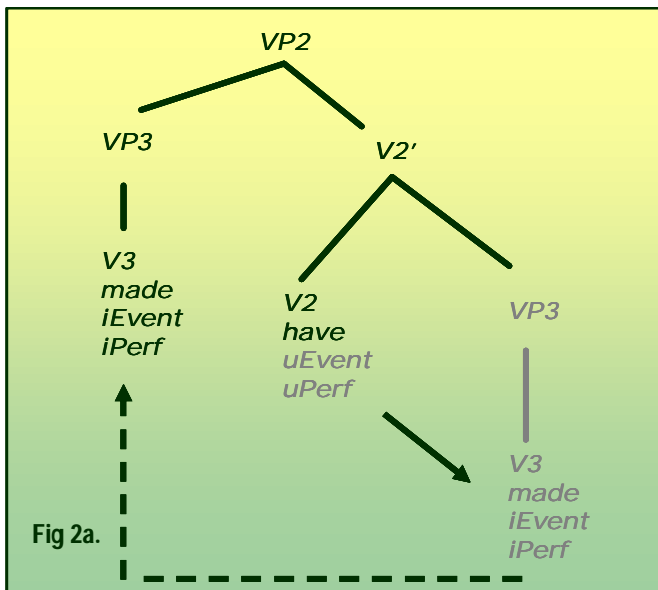
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the participle. Auxiliaries also have an uninterpretable Perfective feature that also must be erased

- Contrary to Barbiers, I assume various dialects may have paired entries for modals and auxiliaries, one with and one without the uninterpretable features. The versions without the feature provide no agreement opportunity for the participle, preventing movement.

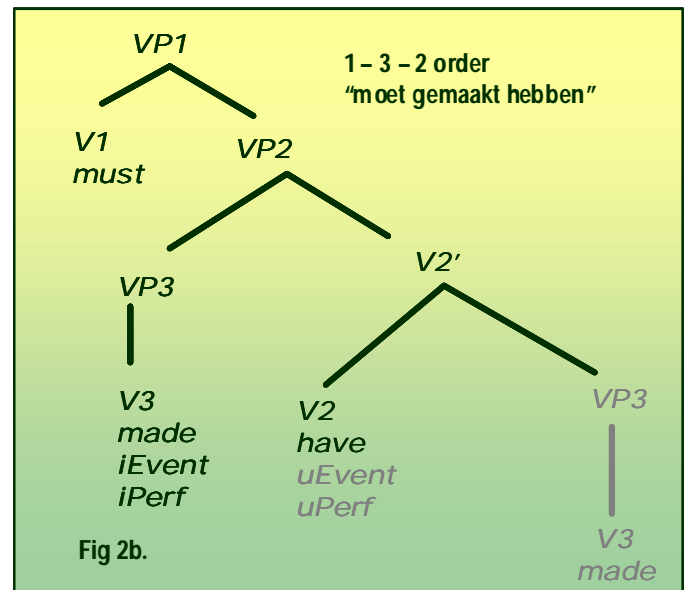
**Derivations.** The derivation of the three major word orders is illustrated in the following figures. Note that whether movement occurs or not depends entirely on which member of the paired modals or auxiliaries is selected—the one with, or the one without uninterpretable features.



In the simplest case, VP3 merges with VP2. VP2 is headed by the version of *hebben* 'have' without the uEvent or uPerf features. Without agreement, *gemaakt* 'made' does not move. VP2 merges with VP1. VP1 is headed by the version of *moet* 'must' without the uEvent feature so there is no agreement and no movement,



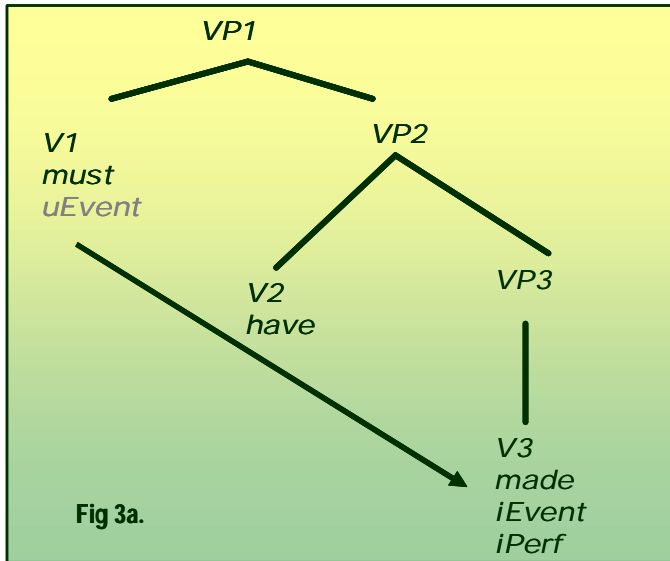
In another case, there is agreement between the iEvent and iPerf features of *gemaakt* 'made' and the uEvent and uPerf features of *hebben* 'have'. After merger, the uEvent and uPerf features on V2 *hebben* are erased under agreement with the iEvent and iPerf features of *gemaakt*. There is agreement, so VP3 moves to SpecVP2



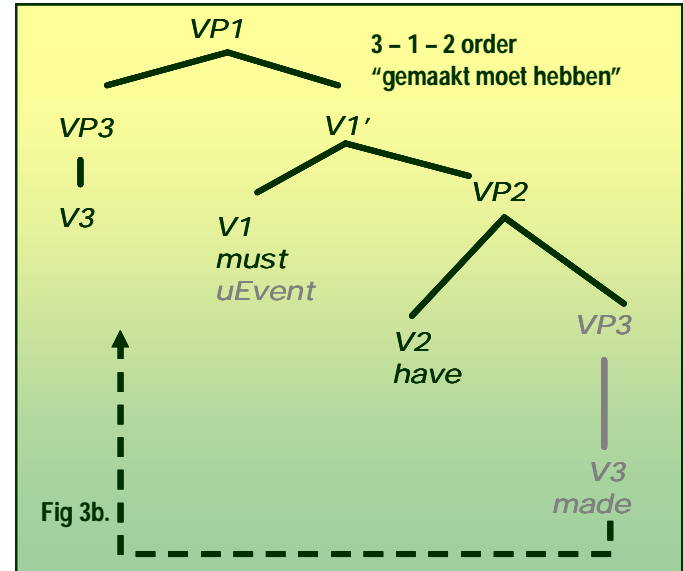
Following the movement of VP3 to SpecVP2, VP2 is merged with VP1. VP1 is headed by the version of *moet* 'must' without the uEvent feature. There is no agreement between *moet* and *gemaakt*, so there is no further movement.

## What is Inherent Variability in Syntax?

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In the third case, VP3 is again merged with VP2. However, VP2 is headed by the version of *hebben* ‘have’ with no uEvent or uPerf feature. There is no agreement with *gemaakt* ‘have’, no uninterpretable features to be erased and no movement to Spec VP2. VP1 is headed by the version of *moet* ‘must’ with uEvent. After merger with VP1, this uninterpretable feature is erased under agreement with iEvent on *gemaakt*



Since there is agreement between VP3 and VP1, VP3 moves to Spec VP1.

**Three Classes of Dutch Dialects.** As a kind of bonus, this analysis allows a simple way to account for the properties of three contiguous dialect areas. Barbiers finds that three dialect areas can be characterized by the pattern of verb clusters found. There are “transitional” dialects in the southeastern Netherlands in which all three of the above cluster orders are found. Neighboring Belgian dialects have only 1-3-2 and 3-1-2. Neighboring Hollandic dialects have 1-2-3 and 3-1-2.

### *The Belgian dialects.*

- The Belgian dialects require movement of VP3 to at least SPEC VP2
- Since movement is induced by agreement that implies that these dialects have only the version of auxiliaries with uninterpretable features. The version with no uninterpretable features is not available.
- Since there is always agreement between VP2 and the participle in VP3 in these dialects, movement of VP3 to Spec VP2 is guaranteed. These dialects may, but are not required to, undergo further movement of VP3 to SPEC VP1.
- This implies that the dialects have both versions of modals like *moet*.
- If the version without the uEvent feature is selected, there is no further movement and the 1-3-2 order results.
- If the version with the uEvent feature is selected, VP3 undergoes a second movement to SPEC VP1, giving the 3-1-2 order.

### What is Inherent Variability in Syntax?

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- This combination of lexical possibilities allows precisely the two observed orders. However, the 3-1-2 order can arise only by way of a kind of “successive cyclic” derivation, in which both *moet* and *hebben* have uninterpretable features. VP3 moves first to SPEC V2, then to SPEC V1. This gives the same word-order result as the derivation in Figure 3, but with two movements instead of one.

#### *The Hollandic dialects.*

- The Hollandic dialects have verb clusters with either no movement at all (1-2-3), or only movement of VP3 all the way to SPEC VP1 (3-1-2).
- This implies that these dialects have only the version of auxiliaries without uninterpretable features, preventing movement of VP3 to SPEC VP2, thus ruling out the 1-3-2 order.
- If *moet* lacks the uEvent feature, there is no movement and 1-2-3 results.
- If *moet* has uEvent, then VP3 moves to SPEC V1 and we get 3-1-2.
- Both the Belgian and Hollandic dialects allow 3-2-1, but by different derivations. On this analysis, the Belgian dialects use “successive cyclic” movement and the Hollandic dialects use direct movement.

#### *The “Transitional” Dialects.*

- The transitional dialects between the Hollandic and Belgian groups allow all three orders.
- Apparently, their lexicons contain versions of both modals and auxiliaries with and without uninterpretable features.
- Since all possible combinations of the two versions are possible, all three word orders are possible.
- Furthermore, the transitional dialects would allow both direct and “successive cyclic” derivations of 3-1-2.

**Conclusion.** We started out asking what inherent variability in syntax might mean. The Dutch dialect case at first glance seemed a promising site for a solution positing that features inducing movement might have variable strength, sometimes initiating movement and sometimes not, in the same structures. But in spite of the fact that Dutch verb-cluster word order variation involves movement, the most natural analysis seems to be based on differences in lexical entries from one language variety to another. It is already clear that choice among available forms is one source of variation in what has been analyzed as syntactic variation. Perhaps it will turn out that it is all we need. If so, then syntactic variation is not strictly speaking inherent, but a matter of what forms are available in a given grammar and what choices speakers make among them at the utterance level.

#### **References.**

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